In the Claims:

Claim 1 (currently amended):

1. A diffractive micro-structure color wavelength division device ~~being a color wavelength division device~~ having a complex two-dimensional surface phase micro-structure ~~whereby~~ wherein ~~distribution and geometric characteristic dimension of~~ said micro-structure has a distribution and geometric characteristic dimension calculated to provide a multiwavelength modulation function and form a diffractive micro-structure color wavelength division element enabling ~~enable~~ wavelength division and focus of white light of an incident backlight source, ~~thereby resulting in~~ so as to cause wavelength division and focus on different positions of space by three different spectrum regions of wavelengths of red, green, blue.

Claim 2 (original):

2. The device as defined in claim 1, wherein said two-dimensional surface phase microstructure of said color wavelength division device has a geometric characteristic microstructure which is calculated on the basis of a diffractive theory of diffraction phenomenon and binary optics, and through an operation of phase iteration algorithm.

Claim 3 (original):

3. The device as defined in claim 1, wherein a single unit of said color wavelength division device is capable of producing in space a respective single point wavelength division and focus of three wavelengths.

Claim 4 (original):

4. The device as defined in claim 1, wherein a single unit of said color wavelength division device is capable of producing in space a respective multi-point wavelength division and focus of three wavelengths.

Claim 5 (original):

5. The device as defined in claim 1, wherein said color wavelength division device can be arranged in the form of array.

Claim 6 (original):

6. The device as defined in claim 5, wherein a plurality of said color wavelength division device are arranged in array in a liquid crystal panel to divide a light source into three different spectrum regions of wavelengths of red, green, and blue, with the wavelengths being focused on corresponding red, green, blue TFT subpixels of the liquid crystal panel so as to provide colors which are essential to color image display.

Claim 7 (original):

7. The device as defined in claim 5, wherein said color wavelength division device is used for multi-point wavelength division and focus of multi points corresponding to arrangement of red, green, blue TFT subpixels of a liquid crystal panel depends on color focal point distribution of the microstructure of the color wavelength division film and arrangement of TFT subpixels.

Claim 8 (original):

8. The device as defined in claim 4, wherein the wavelength division and focal point of said color wavelength division device can be distributed on various definition positions of space.

Claim 9 (original):

9. The device as defined in claim 1, wherein said color wavelength division device is made on a substrate of a polymeric material with light transparency, quartz, or glass.

Claim 10 (original):

10. The device as defined in claim 1, wherein said color wavelength division device is made on one side of a substrate having a polarization transverse function.

Claim 11 (original):

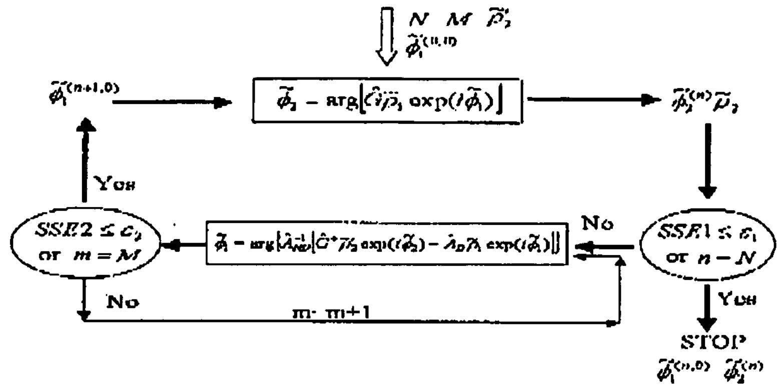
11. The device as defined in claim 1, wherein said color wavelength division device is made on one side of a substrate having a polarized function.

Claim 12 (original):

12. The device as defined in claim 1, wherein said color wavelength division device is used in a color CCD system to replaced of microlens and color filter.

Claim 13 (new):

13. The device as defined in claim 1, wherein said distribution and geometric characteristic dimension of said microstructure is calculated according to the following phase iteration algorithm:



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$$\phi_{2k\alpha} = \arg\{\frac{\sum_{j=1}^{N_1} \hat{G}_{kj\alpha}\, \rho_{1j\alpha} e^{i(\frac{2\pi h_{1j}(n_{s\alpha}-1)}{\lambda_\alpha})}}{\left|\sum_{j=1}^{N_1} \hat{G}_{kj\alpha}\, \rho_{1j\alpha} e^{i(\frac{2\pi h_{1j}(n_{s\alpha}-1)}{\lambda_\alpha})}\right|}\}$$

$$\phi_{1j} = \frac{Q_j^*}{|Q_j|}$$

$$Q_j = \sum_{\alpha=1}^{m} \frac{2\pi(n_{s\alpha}-1)}{\lambda_\alpha}\{\sum_{l=1\neq j}^{N_1} \rho_{1l\alpha}(\hat{G}^{+}\hat{G})_{lj\alpha} e^{i(\frac{2\pi(n_{s\alpha}-1)h_{1l}}{\lambda_\alpha})} -$$

$$\sum_{k=1}^{N_2} \rho_{2k\alpha}\, \hat{G}_{kj\alpha} e^{-i\phi_{2k\alpha}}]\rho_{1j\alpha} \times e^{i(\frac{2\pi h_{1j}(n_0-1)}{\lambda_0}[\frac{\lambda_0(n_{s\alpha}-1)}{\lambda_\alpha(n_0-1)}-1])}\}$$

$$\lambda_0 = \frac{\sum_{\alpha=1}^{m}\lambda_\alpha}{m} \qquad n_0 = \frac{\sum_{\alpha=1}^{m} n(\lambda_\alpha)}{m}$$